

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/10/97

Date Received: 09/04/97

Project: Metro Self Monitor, PO #M60702

Date Samples Extracted: 09/04/97

Date Extracts Analyzed: 09/05/97

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

**Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M60702	1.2	1.0	0.80	0.09
Method Blank	<0.05	<0.05	<0.05	<0.05

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Project: Metro Self Monitor, PO #M60702

**QUALITY ASSURANCE RESULTS FOR
THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 709018-01 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	mg/L (ppm)	1.2	1.2	0	0-20
Copper	mg/L (ppm)	1.0	0.98	2	0-20
Nickel	mg/L (ppm)	0.80	0.81	1	0-20
Zinc	mg/L (ppm)	0.09	0.09	0a	0-20

Laboratory Code: 709018-01 (Matrix Spike)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
				<u>MS</u>	<u>MSD</u>		
Chromium	mg/L (ppm)	5	1.2	98	109	80-120	11
Copper	mg/L (ppm)	5	1.0	90	103	80-120	13
Nickel	mg/L (ppm)	10	0.80	102	106	80-120	4
Zinc	mg/L (ppm)	5	0.09	111	110	80-120	1

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
			<u>MS</u>	<u>MSD</u>		
Chromium	mg/L (ppm)	5	110	112	80-120	2
Copper	mg/L (ppm)	5	107	107	80-120	0
Nickel	mg/L (ppm)	10	113	114	80-120	1
Zinc	mg/L (ppm)	5	114	120	80-120	5

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 10, 1997

DUPLICATE COPY

INVOICE # 97ACU0910-1

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

**RE: Project Metro Self Monitor, PO #M60702: Results of testing requested by
Gerry Thompson for material submitted on September 4, 1997.**

**1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample**

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID # (b) (6)

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September 10, 1997

**Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134**

Dear Mr. Thompson:

Included are the results from the testing of material submitted on September 4, 1997 from your Metro Self Monitor, PO #M60702 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to read 'Kurt Johnson', with a stylized flourish at the end.

**Kurt Johnson
Chemist**

**Enclosures
ACU0910R.DOC**

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